

U.S. FISH AND WILDLIFE SERVICE - SPOTLIGHT SPECIES ACTION PLAN

Common Name: Lesser prairie-chicken (LEPC)

Scientific Name: *Tympanuchus pallidicinctus*

Lead Region: Southwest (R2)

Lead Field Office: Oklahoma Ecological Services Field Office, Tulsa

Species Information:

Status: Candidate

Listing Priority Number: 2

Candidate Assessment Form: December 2008 (73 FR 75176)

Most Recent 5-year Review: Not applicable

Other: LEPC Assessment and Conservation Strategy (Mote et al. 1998), Collaborative Conservation Strategies for the Lesser Prairie-Chicken and Sand Dune Lizard

in New Mexico (New Mexico LPC and SDL Working Group 2005), LEPC Conservation Initiative (Davis et al. 2008), and Draft FWS R2 and R6 LEPC Conservation Strategy

Threats: The decline of the Lesser prairie-chicken (LEPC) has been linked primarily with habitat loss, degradation, and fragmentation. The driving mechanisms include incompatible grazing management, tree encroachment, conversion of rangeland to crop and non-native forage production, energy development, and increased disturbance. Habitat alteration and loss contribute to increased edge effect, habitat fragmentation, reduced habitat quality, reduced recruitment, increased predation, isolated populations, and possible genetic effects. These factors and others, such as disease, weather and climate change can exert a significant influence on LEPC distribution, particularly as population levels continue to decline.

Target: The five-year target is slight to moderate improvement of current LEPC status, as defined by population size and distribution across existing landscape.

Measure: As the magnitude and imminence of the threats are reduced, increased dispersion and population size should become apparent, bringing about an improvement in the listing priority number. Improvement in the listing priority number would be a valid measure of the overall improvement in the status of the species. Over the five-year time frame of this action plan, completion of the identified tasks will help to lower the listing priority.

Actions: The actions outlined in this plan are largely derived from the LEPC candidate assessment, the LEPC Assessment and Conservation Strategy, LEPC and SDL Conservation Strategy, the LEPC Conservation Initiative, and the Draft FWS R2 and R6 LEPC Conservation Strategy. All of these tasks are known to be important to conservation of the LEPC. However, funds to implement many of these tasks are not readily available. Table 1 provides a list of tasks which can be accomplished over the next five years (2010-2014), assuming maintenance of current funding levels over that time frame. Table 2 provides a more exhaustive list of actions needed to achieve a significant change in the species status. Some tasks are included in both tables because the duration of those tasks extends beyond the scope of this action plan.

Table 1. Required Actions (Given Available Funding)

Action	Description	Listing Factor Addressed¹	Responsible Parties²	Estimated Cost (dollars)
1	Review and comment on at least 80 percent of the proposed wind power, transmission and other developments within LEPC historical range	Factor A	State agencies, FWS, BLM	400,000 annually
2	Utilize LEPC Spatial Planning Tool to evaluate proposed wind, transmission and other development projects in Oklahoma	Factor A	OK State agencies, FWS	100,000 annually
3	Develop and utilize a rangewide LEPC Spatial Planning Tool to evaluate development projects in remainder of LEPC historic range.	Factor A	State Agencies, FWS, PLJV, TNC, Universities	40,000
4	Provide technical assistance and deliver improved management of LEPC habitat on at least 4,000 acres of private lands annually	Factors A and E	State agencies, FWS, NRCS, TNC, PLJV, Extension Service, Sutton Center	85,000 annually
5	Complete preparation of a LEPC conservation framework	All	FWS	40,000
6	Hire a Southern Plains Coordinator and co-located private lands biologist to enhance and facilitate rangewide coordination	All	FWS	200,000 annually
7	Maintain FWS state level leads in all affected ES field offices and continue participation in LEPC IWG	All	FWS	350,000 annually
8	Conduct annual lek counts	Factor A	State agencies and Federal partners	100,000 annually
9	Complete section 6 project on the current status and distribution of the LEPC in Oklahoma	Factor A	ODWC, Sutton Center	84,000
10	Cultivate partnerships and inform public through participation in LEPC festivals	All	State agencies, FWS, TNC, Extension Service, Sutton Center, Universities	5,000 annually
11	Maintain or establish regular participation on State Technical Committees, local EQIP working	Factor A	State agencies, FWS	Costs included under

Action	Description	Listing Factor Addressed ¹	Responsible Parties ²	Estimated Cost (dollars)
	groups, and wildlife subcommittees to provide input and guidance on all conservation programs and practices that could affect LEPC habitat			action 7
12	Complete annual revision of LEPC candidate assessment	All	State agencies, FWS	Costs included under action 7

Factor Addressed¹: See current candidate assessment for a discussion of the listing factors. **Responsible Parties²:** State Agencies—Colorado Division of Wildlife, Kansas Department of Wildlife and Parks, New Mexico Department of Game and Fish, Oklahoma Department of Wildlife Conservation (ODWC), Texas Parks and Wildlife Department and others; FWS—U.S. Fish and Wildlife Service, NRCS—Natural Resources Conservation Service, BLM—Bureau of Land Management, TNC—The Nature Conservancy, PLJV—Playa Lakes Joint Venture, and Universities, including participation of Sutton Center.

1) Review and comment on **at least** 80 percent of the proposed wind power, transmission line, and other energy related development projects in LEPC historical range. The Service's current candidate assessment provides a comprehensive discussion of the known and potential threats to the survival of the LEPC. Minimization of the known threats is crucial to achieving the goal of this action plan. Fragmentation caused by human developments, such as transmission lines, roads, communication towers, energy development and dwellings, have been shown to cause lek abandonment and discourage use of habitats by LEPC (Pitman et al. 2005). These types of disturbances often negatively influence habitat use well beyond the actual physical footprint of the disturbance. Completion of this task will allow the individual field offices and State agency personnel to address some of the threats posed by development. Highest priority should be directed to those developments that would impact the highest value LEPC habitat (also see tasks 2 and 3). For wind power developments, the reviewing offices should at least encourage rangewide adherence to the Service's Voluntary Interim Guidelines to Avoid and Minimize Wildlife Impacts from Wind Turbines, released in July 2003, (<http://www.fws.gov/habitatconservation/wind.pdf>). Justification for distance stipulations used in these guidelines with respect to prairie grouse leks can be found in Manville (2004). Future adjustments may become necessary as new guidelines are developed.

2) In Oklahoma, a LEPC Spatial Planning Tool has been developed which classifies LEPC habitat based on the value of the habitat to LEPC. This tool will be used to assist in evaluating the effect of wind power, transmission line and other development proposals on LEPC. Developers will be encouraged to engage in voluntary mitigation strategies to avoid, minimize and compensate for impacts to LEPC populations and habitats. Greatest effort will be given to evaluating those proposals which would impact the highest value habitats. Annual updates to the LEPC Spatial Planning Tool will be prepared, as needed. Additionally, outreach on the utility of this tool will be provided to interested stakeholders. Targeted audiences include the Congressional delegation, Oklahoma Corporation Commission, Oklahoma Conservation Commission, Natural Resources Conservation Service, Farm Services Agency, and development interests.

- 3) Develop and utilize a rangewide LEPC Spatial Planning Tool to assist in evaluating development proposals and strategically targeting on-the-ground conservation for the LEPC within the remainder of historic range.
- 4) Deliver improved management of suitable LEPC habitat within historical range, including tree removal and the removal or marking of fences, on **at least** 1,619 hectares (4,000 acres) of private land annually. Continue to provide technical assistance and funding to private landowners regarding management and conservation of the LEPC. We will work with partners and private landowners to discourage further conversion of native rangeland to cropland or non-native grassland and ensure compatible grazing management, including proper stocking rates, is implemented. Areas within 4.8 km (3 miles) of lek sites will be the highest priority for conservation but any additional conversion should be discouraged.
- 5) Complete preparation of a conservation framework for the LEPC. A conservation framework is a document that synthesizes threats and management information within the range of the target species and documents the decision-making process behind threat management recommendations and effects analysis. The framework provides a structured process to identify and document conservation needs of a species and aids in evaluating threats to species conservation. As a component of this conservation framework, a comprehensive list of best management practices or project design considerations will be developed. Specific standards for plant composition and grass height, based on NRCS ecological site guidelines and similar to that developed in the LEPC and SDL conservation strategy, should be developed over the historic range of the LEPC. These standards can be used to direct improved management of suitable LEPC habitat, as identified in action item 4.
- 6) Hire a Southern Plains Coordinator and co-located private lands biologist to enhance and facilitate rangewide coordination of strategic conservation efforts for the LEPC and other High Plains species. The coordinator will help ensure consistency in conservation approaches between the FWS field offices and FWS administrative regions within the historical range of the LEPC.
- 7) Maintain FWS state level leads, with appropriate funding, in all affected Ecological Services field offices. Lack of staff positions dedicated to LEPC conservation hampers ability to coordinate and deliver on-the-ground conservation. Continue participation in LEPC Interstate Working Group.
- 8) Continue monitoring population trends by conducting annual lek counts across known range. The States have primary responsibility for completing LEPC monitoring efforts with some support from Bureau of Land Management (BLM), U.S. Forest Service (USFS), and private parties. The FWS will support these monitoring efforts and provide assistance, as requested. The Service will support improved population monitoring which fosters a better understanding of LEPC distribution and habitats, including adoption of uniform survey methodologies, as needed.
- 9) Complete section 6 project entitled "Current Distribution and Status of the Lesser Prairie Chicken of Oklahoma."

10) Cultivate partnerships and inform the public through participation in LEPC festivals within at least three LEPC States. The FWS will continue to support festivals like those in Milnesand, NM, Woodward, OK, Canadian, TX and others. Effective educational and outreach materials will be developed, as needed, and suitable materials already developed will continue to be distributed.

11) In all LEPC States, maintain or establish regular participation on State Technical Committees, local EQIP working groups, and wildlife subcommittees to provide input and guidance on all conservation programs and practices that could affect LEPC habitat. Considerable effort should be devoted to influencing implementation of U.S. Department of Agriculture (USDA) programs such that program objectives are met while maximizing the benefit of these programs to the LEPC. Many of these programs have tremendous potential to enhance conservation of the LEPC and other High Plains species.

12) Prepare annual revisions to the LEPC candidate assessment.

Role of other agencies: Currently, the LEPC is primarily a state trust resource. Much of the responsibility for management of the LEPC rests with the five State fish and wildlife agencies within the current range of the LEPC. Continued participation by the States is required to ensure conservation of the LEPC; however, conservation of the LEPC cannot occur without the support and assistance of a number of other Federal, State and private entities. Currently the respective State fish and wildlife agencies have primary responsibility for monitoring LEPC populations and setting hunting seasons and bag limits within their states, as appropriate. Additionally some states own or manage parcels of land that are, or could be, managed for the LEPC. Some monitoring assistance is provided by the Bureau of Land Management (BLM) in New Mexico and the U.S. Forest Service (USFS) in Colorado and Kansas. Several of the actions included in this plan likely will be completed by the States using State funding sources. The U.S. Geological Survey (USGS) has expressed interest in preparing a spatially explicit population viability analysis (PVA) for the LEPC. If sufficient funding is generated, they may play a pivotal role in completing the PVA. The Sutton Avian Research Center has completed a number of research projects on the LEPC and is actively involved in the marking and removal of fences in LEPC habitat. Continued involvement of the Sutton Center is needed to ensure the success of these efforts. The Natural Resources Conservation Service (NRCS) and Farm Services Agency (FSA) also play an important role in completion of the needed actions. As lead agencies for many agricultural programs, their involvement is critical, particularly to ensure maximum participation of landowners under the CRP-SAFE program. A number of universities, including Texas Tech University and the University of Oklahoma, currently have ongoing research projects designed to address conservation needs of the LEPC. Completion of these research projects will provide needed information on the life history and ecology of the LEPC.

Role of other ESA programs: Currently, the State of Oklahoma has a section 6 grant to determine status of the LEPC in Oklahoma. Completion of this grant will provide much needed information regarding the current status of the LEPC in Oklahoma. The State of Oklahoma also was awarded a habitat conservation plan (HCP) planning assistance grant to address the development of wind power in some areas occupied by the LEPC. The primary focus of this

HCP is the Whooping crane but the LEPC will be addressed where its range overlaps with the Whooping crane migration corridor. Both New Mexico and Texas have existing candidate conservation agreements (CCA) or CCA with assurances (CCAA) or both for the LEPC within occupied range. During section 7 consultations within the 5 states, the LEPC will be addressed where there is a Federal nexus. However, candidate species have no protection under the Endangered Species Act (ESA) and any recommended conservation actions intended to benefit the LEPC are provided for planning purposes only.

Role of other FWS programs: Involvement of the Partners for Fish and Wildlife Program is crucial to success of many conservation efforts for the LEPC. The LEPC occurs predominantly on private lands and working with private landowners can directly influence conservation of the LEPC. The FWS Refuge Program can play an active role in conservation of the LEPC. Refuges located within the current and historical range of the LEPC can directly influence habitat quality for LEPC. Large refuges in strategic locations will be necessary to ensure long-term conservation of the LEPC. Such large refuges are currently lacking throughout most of the historic range.

Additional funding analysis: As indicated in the LEPC candidate assessment, the LEPC Assessment and Conservation Strategy, LEPC and SDL Conservation Strategy, the LEPC Conservation Initiative, and the Draft FWS R2 and R6 LEPC Conservation Strategy, completion of a number of tasks, both individually and cumulatively, are necessary to ensure the long-term persistence of the LEPC. Unfortunately specific goals and the necessary funds to complete these tasks are largely unavailable at this time. As additional funding becomes available, completion of these remaining tasks will bolster our ability to make significant improvements in the conservation of the LEPC. Additional funding likely will greatly influence our ability to achieve conservation more quickly than anticipated and may even allow removal of the LEPC from the candidate list. Over the next 5 years, completion of two tasks would be instrumental in addressing the impact of proposed energy development on the LEPC and in strategically implementing needed conservation efforts.

Table 2. Important Actions

Action	Description	Listing Factor Addressed	Responsible Parties ¹	Estimated FWS Cost (dollars)
1	Develop a spatially-explicit, rangewide Population Viability Analysis (PVA)	All	State Agencies, FWS, USGS, TNC, Sutton Center, PLJV	500,000
4.9	Use tools such as HCP to benefit LEPC habitat (multi-state HCP for wind development)	Factor A	State agencies, FWS, Wind Energy Industry	1,500,000

Responsible Parties¹: State Agencies—Colorado Division of Wildlife, Kansas Department of Wildlife and Parks, New Mexico Department of Game and Fish (NMGF), Oklahoma Department of Wildlife Conservation, Texas Parks and Wildlife Department (TPWD) and others; FWS—U.S. Fish

and Wildlife Service, USGS—U.S. Geological Survey, TNC--The Nature Conservancy, PLJV—Playa Lakes Joint Venture, and Sutton Center.

1. Develop a spatially explicit, rangewide Population Viability Analysis (PVA). Population viability analysis is a modeling-based tool that can be used to guide management and decision-making and is increasingly being used as part of an overall conservation plan for rare and imperiled species. A spatially explicit PVA is a complex analysis that can be used to predict the future of a collection of populations over time and provide inferences with respect to how management actions might affect the persistence of those populations. A PVA is one of many useful tools that could be used to facilitate conservation efforts for the LEPC. Beissinger and Westphal (1998) provide an overview of the use of such models in endangered species management.
2. A Habitat Conservation Plan (HCP) Planning Assistance grant was awarded in FY09 for preparation of a multi-state HCP addressing wind development for both the Whooping crane and the LEPC. Currently only a portion of the historic range of the LEPC would be included in the HCP. Completion of this HCP is an important step in addressing the threat of wind power to the LEPC.

Literature Cited

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A handwritten signature in cursive script, appearing to read "John Dehaene", is written over a horizontal line. The signature is fluid and extends slightly beyond the line on both sides.

Field Supervisor

8/25/09

Date